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Transmit

A Publication of the Arizona Public Safety Communications Commission (PSCC)

In this issue:

Our Mission:

To enable real-time, interoperable communications between local, county, state, tribal, and federal public safety entities in the State of Arizona to effectively protect lives and property.

PSCC

Transmit

Executive Director's Log

Introducing our newest tool

Curt Knight

. . . the new tool I am speaking of can, if used properly, actually become one of the best enablers of our long-term, complex, and vitally important effort.

Advancing the emergency service communications system in Arizona so it can meet all of the critical interoperability needs of the state's first responders will require, in many cases, the use of dynamic new tools.

As the Executive Director of the Arizona Public Safety Communications Commission (PSCC), I would like to introduce you to one of the newest tools to be utilized in helping Arizona dramatically improve its public safety radio communications system.

Despite its relative simplicity and lack of a lofty price tag, the new tool I am speaking of can, if used properly, actually become one of the best enablers of our long-term, complex, and vitally important effort.

If you haven't already guessed, the new tool I am speaking of happens to be the publication you are reading now. Entitled *Transmit*, this newsletter will be published as needed by the PSCC Support Office as another means of conveying useful, timely information to you about the ongoing movement to better protect lives and property in Arizona by making historic changes to our emergency service communications system.

Ultimately, by reading this publication and staying better informed, it will be easier for you – the stakeholders in this process - to ensure your exact needs, especially as they relate to radio system interoperability, will be met by the final communication's solution.

While this issue of *Transmit*, being the very first, will serve as more of an introduction to the publication, future issues will cover some of the PSCC's recent success stories, upcoming challenges, and complex issues as they relate to moving this state's emergency service communication system forward.

Thank you for your continued support of this exciting effort that will undoubtedly have a long-lasting, lifesaving impact on the state of Arizona.

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What front-line public safety radio users really want

Recent article serves as reminder to focus on critical factors, not useless bells and whistles

Unfortunately, those helping shape the design of next-generation public safety radio communications systems must sometimes be reminded not to lose sight of what front-line public safety radio users really want.

An article published in the August 2006 issue of Law Enforcement Technology Magazine offered just such a reminder and resonated deeply with those involved in the effort to advance Arizona's public safety communications system.

The article, written by David Storey, showed just how easy it would be to design a public safety communications system today, including actual radio units for first responders, that featured far too many frills and not enough functionality.

"According to the latest pipedreams, first responder radios today could encompass the functions of pocket computers, cellular telephones, internet browsers, surveillance devices, and even iPods," wrote Storey.

The veteran journalist then asked readers how many of those gizmos and gadgets would truly benefit first responders and their need to be more efficient in the field.

Storey then brought up a point that is, and always has been, near and dear to the Arizona Public Safety Communications Commission (PSCC).

He said that radio system technology and design strategy "should be driven not by what technology is available, but by the intelligence and feedback received from public safety professionals and first responders who actually use the equipment day in and day out, sometimes under hazardous conditions."

He then proceeded to explain why so many unnecessary bells and whistles can creep their way into today's public safety radio communications systems and related components, bogging such tools down and making them more complicated for first responders to use.

Judging from his article, the proliferation of flashy, but ultimately useless "gizmos and gadgets" for first responder communication tools is simply the result of such technologies looking for new homes outside of the basic consumer market.

As such technologies try to branch out of the consumer market, they can masquerade themselves as useful tools in the public safety arena as a means of making additional money for their manufacturers.

Thankfully, Storey's article did provide a well researched list of what public safety radio users say they really want from their actual radio devices. Not surprisingly, no useless bells and whistles made the list.

His findings were really nothing new to the PSCC, which has conducted similar research of its own in Arizona, but they served as a terrific reminder that fundamentals, not frills, should always come first when designing communications tools for first responders.

As you will see, some of Storey's findings are very similar to the detailed communications desires of Arizona's public safety workers that were identified and then listed in the PSCC's

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AERS: a resourceful bridge to a true interoperability solution

In future issues of *Transmit*, you will likely be hearing quite a bit about the ongoing deployment of the Arizona Emergency Radio System (AERS), an exciting stepping stone to the final interoperability solution for Arizona's public safety radio communications system.

AERS will be providing, within a short period of time, limited radio interoperability to various city, county, state and tribal public safety agencies in Arizona that previously had little or no ability to communicate with each other in emergencies.

The system will work by creating an interoperability overlay to local public safety communications systems. Dispatch centers will tie into the AERS sites, which can then connect various agencies to the shared mutual aid asset.

The development and deployment of AERS is considered a short-term communications strategy in light of the complexity of achieving a complete interoperability solution for Arizona.

However, it will be a critical stepping stone or bridge to the final solution that makes incredible use of some

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Kincheloe brings wealth of experience to PSCC Support Office

Soft-spoken California native has tackled large-scale telecom projects from Alaska to Egypt

Soft-spoken, humble and quick to offer a warm, genuine smile to everyone he encounters, Wayne Kincheloe doesn't exude any of the arrogance you might expect from a man who has significantly shaped complex telecommunications projects of epic proportions.

Neither does Kincheloe, at least on the surface, exhibit any of the rough, gritty personality traits you would expect of a man who has directed, often from the front-lines, massive telecommunications jobs in the harsh working environments of Egypt and Alaska.

When talking to Kincheloe, though, one still gets the overwhelming sense that he couldn't be better qualified or experienced to have significant involvement in the ongoing effort to dramatically advance the existing public safety radio communications system in Arizona.

A day off in Egypt

Kincheloe (pictured) had an opportunity to experience Egypt's scenic wonders and fascinating history while helping advance the country's telecommunications system.

A Telecommunications Engineer II assigned to the Arizona Public Safety Communications Commission (PSCC), Kincheloe brings a wealth of expertise and experience to the important job of helping Arizona remedy the current and dangerous "interoperability" shortcomings with its emergency services communications system.

Armed with a bachelor's degree in electrical engineering, a master's degree in engineering management and a track record of successful communications system design work all over the country, Kincheloe also brings passion into the mix.

"The ongoing effort to advance Arizona's public safety radio communications system by ensuring it will meet all of the critical interoperability needs of the state's first responders is quite historic," Kincheloe said. "It will save lives year after year upon its completion and I couldn't be more thrilled or proud to be involved in this."

Enamored with the field of telecommunications since the day he was introduced to amateur radio, or HAM radio, as a child, Kincheloe has been employed by major corporations all over the country – and in Egypt – who have recognized his excellence in completing dynamic telecommunication's projects.

The PSCC was lucky enough to make Kincheloe a full-time member of its Support Office staff in October of 2005 after the Fresno, California native decided to come out of retirement to help Arizona with its well-publicized interoperability initiatives.

Kincheloe's role with the PSCC will change as the long-term effort to advance Arizona's public safety radio communications system enters different stages.

Currently, though, he is helping the Commission by serving as its roving, all-purpose telecom expert of sorts, assisting with everything from reviewing and marking up technical submittals to creating detailed coverage maps for VHF and UHF radio sites.

He has also completed exhaustive coverage surveys for all of the Arizona Emergency Radio System (AERS) sites and designed some of the transmission steering and receiver voting systems for that project using special computer-aided design software.

"I feel like I am helping the PSCC place some of the stepping stones that will help lead to an interoperability solution for the state of Arizona," said Kincheloe, who is also adept at conducting project management for large-scale telecom jobs.

Helping Arizona realize a new, robust public safety radio communications system will surely take the cake, but the proudest accomplishment of Kincheloe's career thus far occurred in 1975.

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Kincheloe ...

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That is the year he designed and built the enormous microwave communications system that would support and enable the construction of the Alaska Pipeline.

The system, which he designed, built and maintained with the help of a large staff, allowed the thousands of engineers and workers tasked with constructing the Alaska Pipeline to talk to each other and ultimately coordinate urgent job tasks as needed.

The communications system featured numerous microwave sites, some of which were solar powered, spread across the 800-mile pipeline construction zone.

The system was anchored by a large telephone "switch" in Fairbanks, Alaska and smaller "switches" in every one of the more than two dozen construction camps located along the pipeline's route.

All told, the communications system Kincheloe helped build and maintain serviced the more than 50,000 workers assigned to every aspect of the $8 billion pipeline construction project.

"My staff and I had a fleet of helicopters and fixed-wing aircraft at our disposal to quickly respond to any aspect of the communications system on the pipeline that needed urgent attention," said Kincheloe. "My time in Alaska was very exciting and rewarding to say the least."

When he is not grinding away in the PSCC Support Office located near downtown Phoenix, Kincheloe enjoys reading and fly-fishing. In recent months, he has also discovered the joy of taking weekend road trips with his wife, Liz, to Arizona's high-country.

"I am still relatively new to this state and there are dozens of places here that my wife and I still want to see for ourselves," said Kincheloe, whose favorite road trips so far have included stops at the small, scenic lakes scattered about the Mogollon Rim.

In the end, though, Kincheloe's real passion is for telecommunications work and he says he couldn't have found a more worthwhile effort in which to currently apply his skills.

"This is a challenging, long-term project that will significantly decrease the risks faced by public safety personnel and citizens during emergencies," Kincheloe said. "Can a communications project really be any more important than that?"

Radio users ...

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official guide book of sorts – its Concept of Operations.

Like the PSCC, Storey discovered public safety radio users want their radios to feature nothing other than:

- Ease of use, especially in emergencies
- Perfect audio/voice quality and clarity
- Longer battery life (which can't be achieved with too many bells and whistles)
- Rugged durability and reliability
- 24/7 customer service and technical support
- Lower cost

You might be very surprised he didn't list the desire of public safety workers to have radios that can easily interoperate for cross-jurisdictional emergency communications.

This is because the number one item on his list actually included the desire of pubic safety workers to be able to communicate across jurisdictions as needed.

It was just explained later in his story, and hidden under his "ease of use" bullet point because, like the PSCC, Storey believes it should not be difficult, puzzling or confusing in any way for public safety workers from different agencies to be able to instantaneously connect with each other as needed.

In the end, the article resonated strongly with the PSCC because of its desire to dramatically advance the public safety radio communications system in Arizona while never losing focus of what this state's first responders "really want."

AERS ...

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of this state's existing, or legacy, communications equipment. After all, coverage for the system is based on using available towers and connecting area dispatch centers to the radio sites.

It is very complimentary to the existing regional communications systems and is not requiring agencies to replace existing systems that may already function well.

In the end, AERS is a simple, short-term solution to some of Arizona's critical interoperability needs that can be expanded as needed while the state's final interoperability solution continues to take shape.

Stay posted for further updates on AERS and news about the deployment of specific AERS sites.

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